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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,178	09/15/2003	Ray G. Sadler	10001445-4	1351
22879 7590 05/01/2008 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER KAPLAN, HAL IRA				
ART UNIT 2836		PAPER NUMBER		
NOTIFICATION DATE 05/01/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/662,178

Applicant(s)

SADLER ET AL.

Examiner

Hal I. Kaplan

Art Unit

2836

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17, 18, 20-28 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17, 18, 20-28 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the US patent of Higashi et al. (6,014,322) in view of the US reissued patent of Winch et al. (RE39,446).

As to claim 17, Higashi discloses a first bulk power supply (1); a second bulk power supply (2); at least one isolation diode (26) for hot swapping between the first and second bulk power supplies (1,2) without disabling the first (1) or second (2) bulk power supply; and an output receiver (+V) that receives output from the diode (26) (see column 5, lines 12-17 and Figure 1). Higashi does not disclose the claimed line filter.

Winch discloses a line filter (10) that receives AC input power (from, e.g., a wall outlet), wherein the line filter (10) suppresses harmonic signals from reflecting back into an AC input line (12) (see column 5, lines 19-26; column 6, lines 51-65; column 10, lines 23-49; and Figure 1). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified Higashi by inserting the line filter of Winch at the AC input of each bulk power supply, in order to more effectively suppress power line harmonics (see Winch, column 10, lines 47-49).

As to claim 20, Higashi discloses a control logic (22) for controlling the bulk power supply system (see column 4, lines 56-61 and Figure 1).

5. Claims 18, 24, 26-28, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higashi in view of Winch, and further in view of the US patent of Gegner (5,404,092).

As to claims 18 and 28, Higashi discloses a rectifier (11-14) for converting AC input power into DC power, and a converter (16-20) that receives DC power. Higashi in

view of Winch do not disclose the claimed power factor correction/adjustment circuit. Gegner discloses a power factor correction circuit (503); and a converter (506) that receives the DC power after power factor correction (see column 4, lines 56-65 and Figure 5). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used a line filter and power factor correction circuit with each of the bulk power supplies of Higashi in view of Winch, in order to generate a smooth, regulated DC voltage with a desired power factor from each bulk power supply.

As to claim 24, Higashi in view of Winch and Gegner do not disclose the 0.98 power factor value; however, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have selected the 0.98 power factor value, because selections of values of operational levels for an electronic device are engineering decisions based upon the system's intended use and the expected requirements of the systems with which it will interface. See MPEP §2144.04 IV (A).

In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

As to claim 26, Higashi in view of Gegner disclose first and second converter chains (bulk power supplies) comprising first and second line filters, rectifiers, power factor corrections, and converters, as set forth above. The isolation diode (26) of

Higashi switches between the first and second bulk power supplies (1,2) upon failure of one of the bulk power supplies (1,2) (see column 5, lines 12-17).

As to claim 27, the switching between the converter chains of Higashi occurs instantaneously ("while maintaining the power supply to the load") (see column 5, lines 12-17).

As to claim 32, Higashi in view of Winch and Gegner do not disclose the 0.98 power factor value; however, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have selected the 0.98 power factor value, because selections of values of operational levels for an electronic device are engineering decisions based upon the system's intended use and the expected requirements of the systems with which it will interface. See MPEP §2144.04 IV (A).

In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higashi in view of Winch as applied to claim 20 above, and further in view of the US patent of Brown et al. (5,481,730).

As to claim 21, Higashi in view of Winch disclose all of the claimed features, as

set forth above, except for the claimed power monitoring. Brown discloses control logic for a power supply system which sends and receives status information to and from a power monitor via a connector (see column 1, lines 48-59). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have incorporated such control logic into the system of Higashi in view of Winch, in order to anticipate impending problems and prevent hardware failures.

7. Claims 22 and 23 are rejected under 35 U.S.C 103(a) as being unpatentable over Higashi in view of Winch and Brown, as applied to claim 21 above, and further in view of the US patent of Li (6,700,767).

As to claims 22 and 23, Higashi in view of Winch and Brown disclose all of the claimed features, as set forth above, except for the claimed fan. Li discloses a fan (see Figure 1) for cooling a bulk power supply system, further comprising at least one bias supply (Vcc) for supplying power to the fan (see column 2, lines 31-44 and Figures 1 and 2). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used a fan with a bias supply such as that taught by Li to supply power to the fan and the control logic of Higashi in view of Winch and Brown, in order to prevent damage to the circuitry due to an over temperature condition.

8. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higashi in view of Winch as applied to claim 17 above, and further in view of the US patent of Kociecki (6,198,642).

As to claim 25, Higashi in view of Winch disclose all of the claimed features, as

set forth above, except for the claimed load share controller. Kociecki, drawn to a compact multiple output power supply, discloses a load share controller (696) to control load sharing in a bulk power supply system (see column 20, line 26 - column 21, line 14). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used the Unitrade Corp. type UC3902 load share controller, as taught by Kociecki, to control load sharing in the system of Higashi, in order to ensure that each load receives its proper voltage and current.

9. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higashi in view of Winch and Gegner as applied to claim 28 above, and further in view of the US patent of Cabaniss et al. (5,790,394).

As to claim 30, Higashi in view of Winch and Gegner disclose all of the claimed features, as set forth above, except for a chassis. Cabaniss discloses providing power back to a chassis (205) for distribution to components of a user system (see column 3, lines 2-12 and Figure 2). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to provide the output power from the system of Higashi in view of Winch and Gegner back to a chassis for distribution to other components of the user system, as per the teaching of Cabaniss, because user systems have many different components requiring different voltages, and it is more efficient for multiple components to be connected to a common chassis/backplane.

10. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higashi in view of Winch and Gegner as applied to claim 28 above, and further in view of Brown.

As to claim 31, Higashi in view of Winch and Gegner disclose all of the claimed

features, as set forth above, except for sending and receiving status information between a power monitor and the user system. Brown discloses control logic for a power supply system which sends and receives status information to and from a power monitor via a connector (see column 1, lines 48-59). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have incorporated such control logic into the system of Higashi in view of Winch and Gegner, in order to anticipate impending problems and prevent hardware failures.

Response to Arguments

11. Applicant's arguments that there is no disclosure in Gegner related to filter 501 being used to suppress harmonic signals from reflecting back into an AC input line, see Remarks, filed January 15, 2008, with respect to the rejection(s) of claim(s) 17-32 under 35 U.S.C. 102(e) and 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Winch.

12. Applicant's arguments regarding column 8, lines 6-7 of Gegner relating to DC-DC conversion instead of AC-DC conversion, and no AC lines in which harmonic signals may reflect, have been considered and are not persuasive, but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Sherry/
Supervisory Patent Examiner, Art Unit 2836

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